



GUIDANCE AND RECOMMENDATIONS FOR DESIGN
FACULTIES TO SUPPORT THEIR COLLABORATIONS WITH
NGOs IN COURSES RELEVANT TO INCLUSIVE DESIGN:

A Method Suggestion

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About this guidance:

Inclusive Design SiDe Programme (Sustaining Inclusive Design through Co-design Platforms) is a collaboration project supported by the British Council's "Newton Fund - Research Environment Links Program". In this project, Loughborough University (School of Design and Creative Arts) and Mimar Sinan Fine Arts University (Faculty of Architecture), together with five partners (Spinal Cord Paralytics Association of Turkey, Six Dots Foundation of the Blind, Cambridge EDC, FixEd, and the Design Research Society.) are working together to create a collaborative platform where collaborations on inclusive design research and education can be carried out sustainably.

As a part of the «SiDe Programme Project», this guidance document, which focusses particularly on the collaborations between universities and non-governmental organisations (NGOs) within the scope of design education, is prepared. The guidance outlines a framework that can be utilised by tutors in their courses covering inclusive design project practices, and provides recommendations for every stage necessary for the success of the collaboration effort.

In this respect, the aims of the method suggested in the following pages are to increase the effectiveness of such collaborations between universities and NGOs, and to maximise students' understanding of inclusive design by engaging them with a co-design experience.

WHY DO WE RECOMMEND WORKING WITH NON-GOVERNMENTAL ORGANISATIONS?

Besides teaching inclusive design in design-related degrees, collaborations with NGO(s) not only provide design students a **perspective on social responsibility and volunteering** but also provide a chance to observe **how these organisations deal with real-life issues** in the society. These collaborations may also help students to understand the power of design in providing solutions to a wide range of real-life issues experienced by many people in their daily lives. Many other benefits are covered on the next page.

When carrying out such collaborations, it is important to provide common benefits to all parties through inclusive design and allow students to experience learning through co-designing with real users. In this respect, **the primary audience of our «SIDe Programme Project» are universities, university students and non-governmental organisations working on disability issues.** Having said that there are also other important stakeholders such as professional designers, design consultancies, local authorities, government bodies, private sectors and other local or international organisations; they can also be involved in the process.

Benefits of University-NGO Collaborations

1. NGOs working on disability issues have their **experience-based knowledge**, and when it is combined **with academic perspectives**, this can turn into valuable information for design students.
2. When the involvement of NGOs in design education is used effectively, such collaborations between NGOs and universities could help **integrate experiential learning approaches** in design education.
3. NGOs have a good network with media organisations and local authorities; this enhances the possible **impact of collaboration projects** on the public.
4. Universities have their networks in academia, which facilitates the **development of an up-to-date and collective research-based knowledge** and presenting it in different formats.
5. University students may benefit from involving in social responsibility projects by working with NGOs, and this is valuable from **sustainable development and social utility perspectives** as well.
6. Working with NGOs as part of their formative education aims to produce **future designers who have a greater awareness of real world issues.**
7. Such collaborations may help both parties to understand the potential of **inclusive design** and learn from each other to deal with real-life issues experienced by different communities in society.

USE INCLUSIVE DESIGN AS THE PRIMARY APPROACH

We recommend using the inclusive design process as the main teaching strategy for students' working on design briefs that reflect real-life issues which are within the focus-field of partner NGO(s).



What is Inclusive Design?

According to the British Standards Institution, the definition of inclusive design is: **“design of mainstream products and/or services that are accessible to, and usable by, people with the widest range of abilities within the widest range of situations without the need for special adaptation or design”** (BSI, 2005: p.8).

Through inclusive design, products/systems/built-environments can be designed in a way that can be accessible by people who are likely to be excluded by designers during the design process, e.g. older people, disabled people, international visitors or people who do not or cannot use technology. .

We believe the importance of implementing inclusive design to design education to promote this strategy among future designers and increase their awareness of using design as a powerful tool to provide social integration within society.

However, Mulligan et al. (2018) emphasize the importance of using experiential learning methods that allow interaction with real users throughout the design education to develop a holistic view of the concept of inclusive/universal design, therefore design education itself requires a structured methodology to increase the impact of the learning outcomes of students and provide a good experience for everyone involved in the process. In this respect, this guidance provides a suggested method.

- BSI (2005) *BS 7000-6:2005, Part 6: Managing Inclusive Design - Guide* . British Standards Institute.
- Mulligan K., Calder A. & Mulligan H. (2018). Inclusive Design in Architectural Practice: Experiential Learning of Disability in Architectural Education. *Disability and Health Journal*, 11, 237-242

USE INCLUSIVE DESIGN AS A SOCIAL RESPONSIBILITY STRATEGY FOR DESIGN STUDENTS

Preparing an **agreed timetable** between the university and NGO representatives before starting the term is necessary for partners to understand their roles and contribution during the collaboration. In this direction, important stages for our suggested method are summarised in the table below.

IMPORTANT STAGES	RECOMMENDATIONS
Development of design briefs	The university and NGO representatives collaborate on preparing the design briefs for students, before the term starts.
Introduction of relevant concepts to students	Introduce students the concepts of inclusive design, social responsibility and volunteering, ethics, and project development strategies in the beginning the term.
NGO(s) presentations for students	NGO(s) representatives visit the university, provide a presentation to students to introduce their organisation, discuss the design briefs with students and answer their questions to provide real-life facts.
Matching design students with their design partners from the NGO(s)	Depending on the interests of the students on design topics, project groups are formed. Each group is then matched with an NGO representative whom the students work with throughout their project development stage.
Project development stage	Students co design with their NGO partner throughout the term. Tutor(s) provide weekly feedback on their progress.
Final evaluation	After student groups submit their projects, a presentation event is held, in which students present their projects to each other and receive feedback from both their tutor(s) and NGO(s) representatives.

RECOMMENDATIONS:

- In the initial stage of the University-NGO collaborations, it is critical to provide introductory information to NGO(s) about the concept of inclusive design before starting to discuss developing possible design briefs.
- It is important to inform NGO representatives about the course requirements, expected learning outcomes, teaching procedure and co-design approach before discussing the design briefs.
- At the beginning of the term, we recommend tutors introduce their students the subjects below:

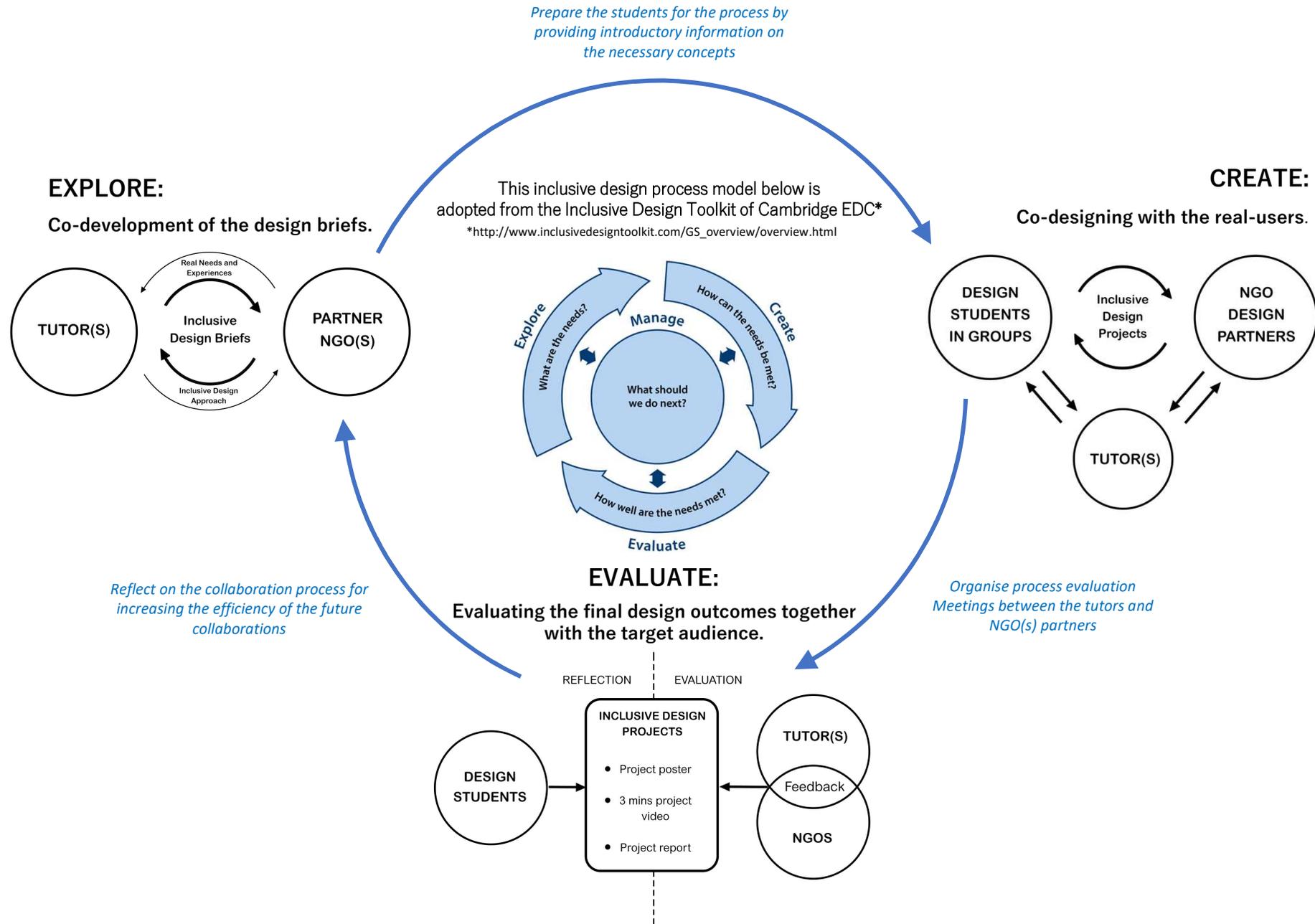
The concept of inclusive design: Students may not be aware of (or have a limited understanding of) the concept of inclusive design or may even have a misunderstanding of its intention.

Social responsibility and volunteering: This will motivate students to understand how their professional design skills can make a positive impact to deal with real-life issues within society and its positive influence on sustainability.

Ethics: Since the students will work with people with disabilities during the course-term, it is fundamental to introduce them to the ethical requirements and strategies on how to carry out sensitive communication with their design partners.

Project development strategies: though design projects can result in different forms, they generally share a similar process and steps. This subject will inform students about the overall process that they will go through during the project, and will inform them about the balance between needs, demands and the efficiency of the offered design solutions.

OUR PROCESS MODEL AND RECOMMENDATIONS FOR UNIVERSITIES



EXPLORE: Co-Development of the Design Briefs



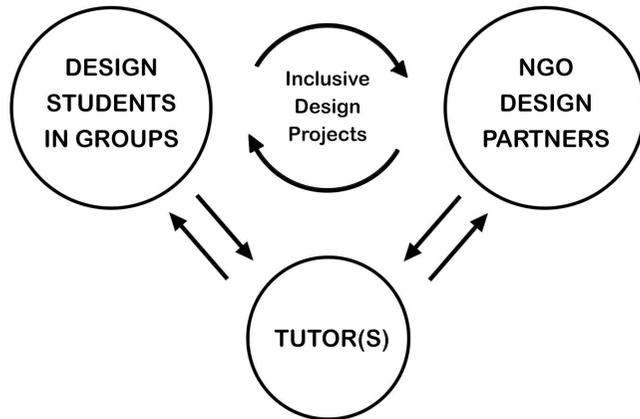
The co-development of the design briefs is one of the critical stages of our recommended collaboration model. This stage enables the transfer of the unique knowledge held by university and NGO representatives reciprocally, and is critical for the efficiency and success of the following stages. It is also important that the NGOs are introduced to the concept of inclusive design, and informed about the course requirements before this task.

The aim needs to provide equal benefits to both universities and NGOs involved in the collaboration. In this respect, our web-platform also provides a medium for these design briefs to raise awareness about the real-life issues by making them visible, and enables other visitors of the platform to comment on the issue throughout the collaboration process.

RECOMMENDATIONS:

- Before this task, tutor(s) with inclusive design knowledge and experience can identify possible topics for design briefs to initiate discussions during the design brief meeting with the NGO representatives.
- During the development of the design briefs, NGO(s) needs to highlight real-life needs and experiences about the topics, and for university tutors, to match these with the course requirements and expected learning outcomes.
- As the outcome of this task, it is recommended to identify a wide range of topics instead of a small number, which will help students to find a suitable topic for themselves and will stimulate discussions between students, tutors and NGO representatives to cover a wide range of social issues.
- The design briefs need to introduce the problem area for students to investigate, rather than pointing out specific design requirements.
- Rather than the tutors, it is recommended for NGOs to introduce the design briefs to students, and associate them with real-life experiences. This can be done during the NGO presentations stage.
- We recommend tutors to discuss the design briefs with students in a course day after the NGO presentations to understand students preferences on the briefs. Some students may require further clarification.

CREATE: Co-Designing with the Real Users



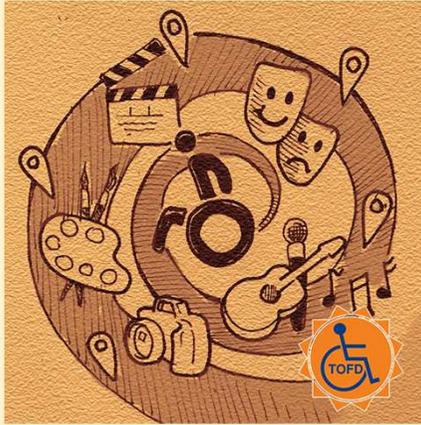
In this stage the tutors' aim should be on ensuring effective interaction between design students and their NGO partners that they are matched to co-design with. In this respect, continuous communication with the NGO representatives and tutors is significant to avoid possible conflicts between their comments on the design works of the students.

On the other hand, working in groups may help students to take different responsibilities during the project development stage, and interdisciplinary student groups (if possible) ensure the sharing of different perspectives on the same real-life issue among the students.

RECOMMENDATIONS:

- Due to the fact that the design briefs are broad in defining the real-life issues, students need to find a design direction by discussing the issue with their design partner and tutors in detail at the beginning of the design process.
- It is important for the tutor(s) to motivate their students to work with their NGO partners regularly. This can be secured by giving 1-2 weekly tasks for students to summarise what they learned from their design partner, which is particularly important in the initial design stage.
- As a mid-term homework, students can be asked to prepare a 1-min video to summarise their problem identification and what they learned from their design partner. Students can present this video to other student groups to share their unique experiences in dealing with different topics.
- Students should be motivated to build simple prototypes during the process.
- Our prior experience suggested the efficacy of utilising an extra person from the NGO(s) who is only responsible for and facilitate communication between students, tutors, NGO administration and design partners from that particular NGO, as well as provide NGO specific information when needed.

A Design Brief Example:



Participation in Public Social Life:

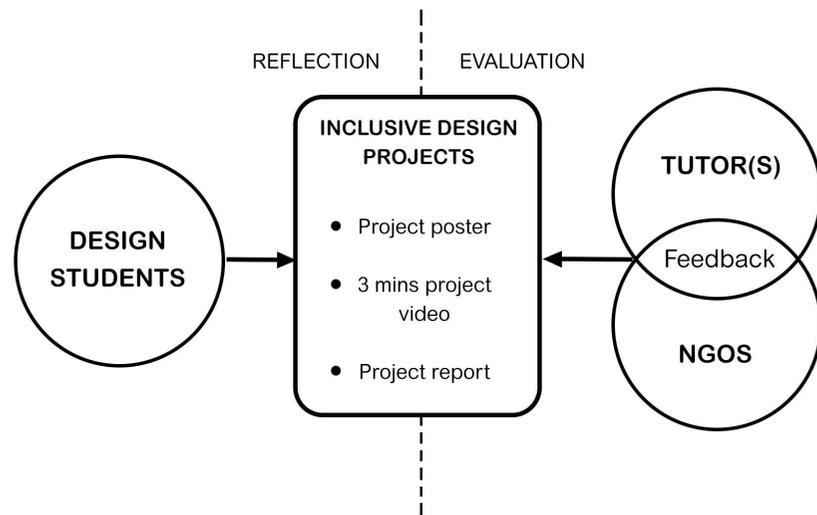
Urban spaces and the solutions they provide for people have a significant impact on social interaction and cultural development. These environments include different places from restaurants and parks to museums, theatres, cinemas and concert venues where social and cultural interactions occur and include the systems or products used inside as a whole. In addition to the problems regarding the accessibility of disabled people to many events or cultural venues the available solutions in certain locations that are considered accessible do not always provide equal access for disabled people. Considering that there are approximately 12% disabled people in Turkey, it is an undeniable fact that people who cannot access cultural and social services as a result of improper practices form a large part of their community and society.

Barrier-free tourism opportunities are also important to consider in terms of social sustainability. In addition to ensuring equal access, this will enhance the city's identity positively on a global stage. This project call focuses on identifying problems that prevent everyone from accessing social and cultural urban spaces to provide better solutions for everyone. This project will be carried out in collaboration with "Spinal Cord Paralytics Association of Turkey".

Certain areas that can be examined within the subject are:

- Common areas such as restaurants, shopping malls
- Areas to support cultural development
- Accessibility for all to different cultural activities under equal conditions
- Requirements regarding open and closed areas
- Access to information
- Barrier-free tourism

EVALUATE: Evaluating the Final Design Outcomes with the Target Audience



In this stage, the main intention is to provide an environment for all parties to share their unique experiences. A presentation day, in which the students can present their projects to other students and receive feedback from both the tutors and all the NGO representatives who took part in different student projects, can be organised.

Several example student submissions are available on our web-platform via this link: <http://www.inclusivedesignside.org/projects?status=false>

RECOMMENDATIONS:

- About the project submissions, we recommend students submit 3 deliverables: i.e. (1) a poster presenting their work visually (including the key information derived during the project development process, and the details presenting the final design solution), (2) a 3-mins project video to present process, and (3) a project report to provide detailed information about their overall project development process. All these materials have different advantages and collectively provide all the information for tutors for assessing the learning outcomes of the students. Examples can be seen on our web-platform.
- During the presentation event of the final inclusive design projects, it is important to focus on the unique experiences of the students and their reflections on the experiential processes, rather than solely providing critics to their final design outcomes.
- After the evaluation stage, a meeting can be organised between the tutors and NGO representatives to discuss the positive and negative aspects of the process and allow reflections on them. This will help both parties to improve their knowledge and efficiency of the possible future collaborations. We recommend sustaining these inclusive design collaborations which will allow the development of a new knowledge area, which is valuable for all parties.
- The final design outcomes can be exhibited on our web-platform to increase their visibility for a wider audience. It is recommended for the university representatives to share the web link of the «project gallery section» with the relevant stakeholders and possible sponsors to promote both the outcoming projects and their design students.

HOW DO WE INTEGRATE THIS PROCESS WITH OUR WEB-PLATFORM?

1. MATCH: A university representative (tutor) visits our platform and finds this guidance document on our co-design approach for courses relevant to inclusive design project development. The tutor invites an NGO for collaboration and shares the guidance document for NGOs which is available on our web-platform too. These documents recommend a collaboration framework and also provide introductory information for NGOs



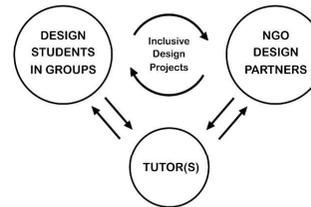
Visitors of the web-platform are able to make comments on the design briefs and the university tutors are able to make certain updates about the progress of the collaboration project.



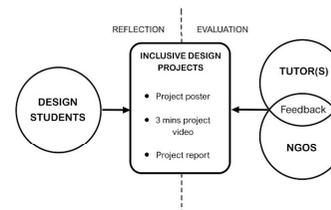
2. EXPLORE: The university representative collaborates with the NGO to co-develop design briefs, and then upload them to the web platform with the logo of the NGO to make the ongoing collaboration visible.



3. CREATE: Volunteer design students taking the social responsibility course respond to the project, and collaborate with a design partner directed by the NGO.



4. EVALUATE: At the end of the term, students present their projects to other students and receive feedback from both the tutors and the NGO representatives.



5. PROMOTE: The outcome of the projects will be uploaded to the platform by the university representative and will be exhibited in the gallery section.

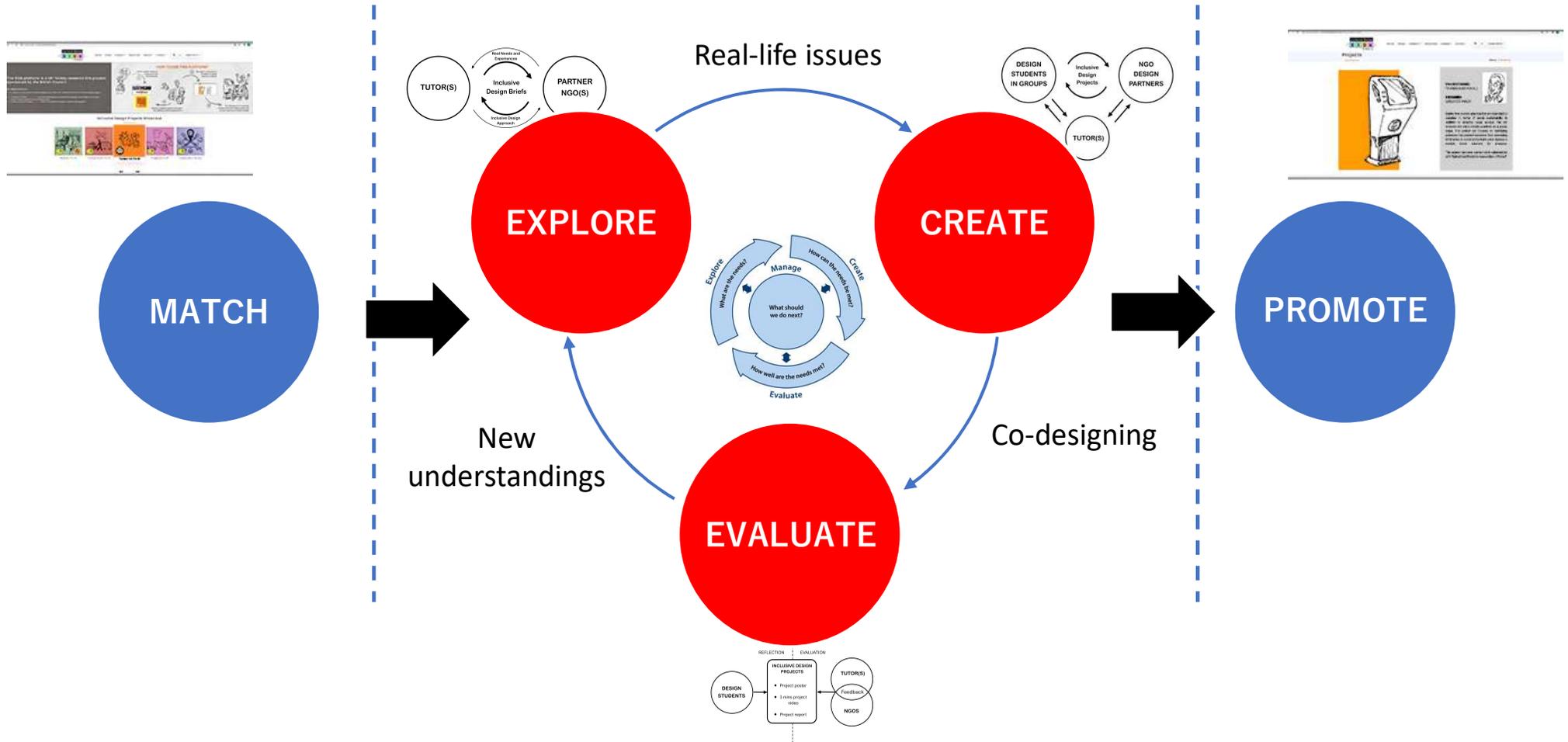


An invitation can be sent to relevant stakeholders/sponsors to visit the exhibition and this will help make the projects visible to a wider audience. The platform will promote these students as designers who have completed an inclusive design project and they can apply for a SiDe Certificate.



The ultimate aim is to convey the design solution to the target audience and increase the awareness on inclusive design!

SUMMARY OF OUR COLLABORATION MODEL INCLUDING THE INTEGRATION OF THE STAGES RELEVANT TO THE SIDE WEB-PLATFORM



● Stages involving our web-platform

● Stages regarding our teaching method suggested

USEFUL RESOURCES:

The resources are recommended by Hua Dong (PhD Cantab), Professor in Design at Loughborough University, DRS Fellow and International Convenor of the DRS Inclusive Design Research Special Interest Group (InclusiveSIG).

Existing resources and relevant organisations:

- <http://www.inclusivedesigntoolkit.com/> What is inclusive design and why do inclusive design? You can find straightforward answers to these questions from this website. The website also explains the process of inclusive design, and gives information about simulations tools and design exclusion calculation tools.
- <http://designingwithpeople.rca.ac.uk> This website offers simple methods and tools for inclusive design. It includes 10 persona profiles based on real disabled people; their daily activities, 20 research methods, and guidance for ethics.
- <http://universaldesign.ie> You can find examples of built environment, products and services, and technology/ICT from this website. There are also a range of freely downloadable guidance, booklets and papers about universal design.

Key legislation, policies, and standards:

United Nations' convention on the rights of persons with disabilities
<https://www.un.org/disabilities/documents/convention/convoptprot-e.pdf>

The Principles of the Convention are:

- Respect for inherent dignity, individual autonomy including the freedom to make one's own choices, and independence of persons;
- Non-discrimination;
- Full and effective participation and inclusion in society;
- Respect for difference and acceptance of persons with disabilities human diversity and humanity;
- Equality of opportunity;
- Accessibility;
- Equality between men and women;
- Respect for the evolving capacities of children with disabilities and respect for the right of children with disabilities to preserve their identities.

CEN standard: EN 17161:2019 on Accessibility (European Standard)

- <https://www.cen.eu/news/brief-news/Pages/NEWS-2019-014.aspx> This is a European process Standard about using a Universal Design (Design for All) approach at all levels in organisations to continuously improve and manage the accessibility and usability of the products and services they provide.
- Equality Act 2010: guidance (United Kingdom)
<https://www.gov.uk/guidance/equality-act-2010-guidance>
- The Equality Act has brought different discrimination legislation together, including:
- Sex Discrimination Act 1975
- Race Relations Act 1976
- Disability Discrimination Act 1995

Academic papers and books

Persson, H., Åhman, H., Yngling, A.A. Gulliksen, J. *Universal design, inclusive design, accessible design, design for all: different concepts—one goal? On the concept of accessibility—historical, methodological and philosophical aspects. Univ Access Inf Soc* 14, 505–526 (2015).

This paper investigates the various concepts used for accessibility, its methodological and historical development and some philosophical aspects of the concept.

Luck, R. *Inclusive design and making in practice: bringing bodily experience into closer contact with making. Design Studies* 54, 96-119 (2018)

This paper offers insights into the nature of inclusive design: “by bringing the bodily experience of people with (dis)abilities more closely into their own design processes we see positive characteristics and advantages in inclusive design’s closer connections with making.”

Pullin, G., *Design Meets Disability, MIT Press, Cambridge, US (2009)*

A beautiful and thought-provoking book on design and disability.

Projects and examples

- **Apple: accessibility**<https://www.apple.com/uk/accessibility/> You can see how Apple considers and accommodates different abilities in its design. görülebiliyorsunuz.
- **Fixperts**<http://fixing.education/films> Over 500 short Films (Typically 3 minutes each) showing ingenious, generous and inspiring fixes from Fixperts projects. You can view the films according to the categories, e.g. inventions, disability, age, home, work, community, DIY etc.
- **Awards winning inclusive Website:**<https://www.gov.uk/> This website is a good example, showing how you can find UK government services and information “simpler, clearer, faster”

Information on disability

World Health Organisation: Towards a Common Language for Functioning, Disability and Health ICF

<https://www.who.int/classifications/icf/icfbeginnersguide.pdf?ua=1>

The International Classification of Functioning, Disability and Health, known more commonly as ICF, provides a standard language and framework for the description of health and health-related states. It is a classification of health and health-related domains. These domains are classified from body, individual and societal perspectives by means of two lists: a list of body functions and structure, and a list of domains of activity and participation.

World Health Organisation (WHO) GATE (Global Cooperation on Assistive Technology) https://www.who.int/phi/implementation/assistive_technology/phi_gate/en/

GATE is a global initiative of the WHO. This is in partnership with stakeholders who represent international organizations, donor agencies, professional organizations, academia, and user groups, to realize the obligations of the Convention on the Rights of Persons with Disabilities towards increasing access to assistive technology.

Web Content Accessibility Guidelines (WCAG) 2.1

<https://www.w3.org/TR/WCAG/>

WCAG 2.1 covers a wide range of recommendations for making Web content more accessible. Following these guidelines will make content more accessible to a wider range of people with disabilities, including accommodations for blindness and low vision, deafness and hearing loss, limited movement, speech disabilities, photosensitivity, and combinations of these, and some accommodation for learning disabilities and cognitive limitations (but will not address every user need for people with these disabilities.) These guidelines address accessibility of web content on desktops, laptops, tablets, and mobile devices.